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| 09/862,418      | 05/23/2001  | Eddie L. Chang       | N.C. 79,764         | 8463             |

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NAVAL RESEARCH LABORATORY  
ASSOCIATE COUNSEL (PATENTS)  
CODE 1008.2  
4555 OVERLOOK AVENUE, S.W.  
WASHINGTON, DC 20375-5320

EXAMINER

PASTERCZYK, JAMES W

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 10/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/862,418

Applicant(s)  
Chang et al.

Examiner  
J. Pasterczyk

Art Unit  
1755



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on May 23, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above, claim(s) 21-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-31 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20, drawn to catalysts and methods of making them, classified in class 502, subclass 159.
- II. Claims 21-31, drawn to methods of “decontamination of a compound”, classified in class 588, subclass 200.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product, such as a sodium hypochlorite bleach or an unsupported metal ion solution.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Rebecca Forman, Esq., on 7/31/02 a provisional election was made with traverse to prosecute the invention of group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-31 are

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withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. The bulk of the references cited to the Office have been considered and made of record. However, some were not furnished, while others were not properly cited and hence could not be made of record. It is urged that attorneys for applicants consult the MPEP for the proper format for an IDS and the required information to be provided therein in citing a reference.

7. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is functional in nature in that it recites that the metal ion, when bound to the support via a chelate ligand, is capable of hydrolyzing three different functional groups. However, it is not clear what structure of the claimed composition makes the composition capable of this, or whether the presence of an additional reagent, e.g. water, acid, base, is necessary to fulfill this function. Hence the claim is considered to be non-enabling as lacking the required structure to fulfill the function recited. This is also found in the last three lines of claim 15.

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In claim 7, it is not clear that Pb(III) and Ni(III) are stable oxidation states, and that thus these are not typos.

In claim 11, l. 2, insert a hyphen after "4'"; in l. 4 it is not clear what is meant by "analogs" and "derivatives" or "an effective level", the latter appearing to be a relative term of degree.

In claim 12, step c), it is not clear toward what reaction or reactants the "catalytically active metal ion" is reactive.

In claim 16, insert --a-- after "provide".

In claim 17, it is not clear on what structural basis the copolymer is to be selected, inviting others to experiment on how to practice the invention rather than teaching how to make and use.

In claim 18, it is not clear how one is to ascertain what a "transition state analog" of phosphates or phosphate esters is, or what reaction to form these compounds is being performed.

Claim 19 should apparently depend from claim 15 in order to give the monomers proper antecedent basis.

In claim 20, l. 3-4, "3(5)-vinylpyridine" appears to be incorrect terminology since a second comma without the parentheses as well as insertion of --di-- before "vinyl" seem to be required.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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9. Claims 1-4, 6, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sielcken, USP 5,620,938 (hereafter referred to as Sielcken).

Sielcken discloses the invention as claimed (col. 2; examples).

10. Claims 1, 2, 4, 6, 7, 10, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Meunier et al., USP 5,141,911 (hereafter referred to as Meunier).

Meunier discloses the invention as claimed (abstract; col. 2, l. 40-60; examples).

11. Claims 1-4, 6, 7, 10, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ying et al., USP 6,028,025 (hereafter referred to as Ying).

Ying discloses the invention as claimed (abstract; col. 2, l. 3-8; col. 7, l. 49-56; col. 8, l. 14-24; col. 10, l. 14-19; examples 2 and 3).

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ying and Sielcken as cited above.

The disclosures of Ying and Sielcken have been discussed above.

Ying and Sielcken lack disclosure of some of the preferred embodiments of the present invention.

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However, those embodiments would have been conventional in the art to achieve.

It would have been obvious to one of ordinary skill in the art to apply that skill to the disclosures of Ying or Sielcken with a reasonable expectation of obtaining a highly-useful immobilized catalyst and method of making it with the expected benefit of the catalyst being easily reusable and usable in the form of wipes to scrub down and decontaminate surfaces.

14. Claims 1-11 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meunier as cited above.

The disclosure of Meunier has been discussed above.

Meunier lacks disclosure of some of the preferred embodiments of the present invention.

However, such preferred embodiments would have been conventional in the art for the routineer to achieve.

It would have been obvious to one of ordinary skill in the art to apply that skill to the disclosure of Meunier with a reasonable expectation of obtaining a highly-useful immobilized catalyst with the expected benefit of the catalyst being easily reusable and usable in the form of wipes to scrub down and decontaminate surfaces.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is (703) 308-3497. The examiner can normally be reached on M-F from 9 to 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached on (703) 308-3823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



**Mark L. Bell**  
Supervisory Patent Examiner  
Technology Center 1700



J. Pasterczyk

AU 1755

10/10/03